



NEW ZEALAND WINE  
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# NEW ZEALAND WINEGROWERS

International Winemaking Practices Guide

9th Edition October 2015







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If any aspect of the information contained in this guide is unclear, or you have additional questions, members can contact the New Zealand Winegrowers Advocacy team Jeffrey Clarke on [jeffrey@nzwine.com](mailto:jeffrey@nzwine.com) or Silua Ettles on [Silua.ettles@nzwine.com](mailto:Silua.ettles@nzwine.com) for further assistance.

## CHANGES IN THIS 9TH EDITION

Where substantive changes have been made since the last edition of the International Winemaking Practices Guide, the text is shaded in yellow.

# INTRODUCTION

Winemaking practices in New Zealand are governed by a number of different laws and regulations, including both domestic rules and rules imposed by the Governments of overseas markets. This Guide is intended to provide an easy reference to the rules of our most important markets.

In New Zealand, the following laws and regulations apply to winemaking practices:

- Food Act 2014
- Australia New Zealand Food Standards Code (the "Food Standards Code")
- New Zealand (Maximum Residue Limits of Agricultural Chemicals) Food Standards 2002 & 2007
- Wine Act 2003
- Wine Regulations 2006
- Wine (Specifications) Notice 2006
- Weights and Measures Regulations 1999

The Ministry of Primary Industries is the government agency responsible for regulating all winemaking practices – with the exception of standards of fill which are governed by the Ministry of Consumer Affairs.

Under the Wine Act 2003, every winemaker must operate under either a wine standards management plan (WSMP) registered with the NZFSA or an exemption. The WSMP provides a framework for compliance with the wine and food standards above. A template for the WSMP is available to members in the form of the New Zealand Winegrowers Wine Standards Management Plan Code of Practice Version 2 which is available on our website [www.nzwine.com](http://www.nzwine.com).

The WSMP covers food safety and hygiene as well as winemaking practices and some aspects of labelling. Any information in this Guide must be read in subject to the WSMP under which a winemaker is operating.

Wine that is intended for export may be subject to additional rules that are covered in Chapter 3 and Appendices 1-4.

# 1 WINEMAKING PRACTICES IN NEW ZEALAND

## 1.1 DEFINITION OF WINE

Standard 2.7.4 of the Food Standards Code sets general definitions for wine and wine product and provides permissions for the addition of certain foods during the production of wine.

### Definition of wine

Wine is defined as “the product of the complete or partial fermentation of fresh grapes, or a mixture of that product and products derived solely from grapes.” This definition includes sparkling and fortified wine. There are no separate definitions for these products.

### The following may be added to wine during production –

- grape juice and grape juice products; and
- sugars (the list of permitted sugars is in Standard 2.8.1); and
- brandy or other spirit; and
- added water, where the water is necessary to incorporate any permitted food additive or processing aid.

### Definition of wine product

Wine product is defined as “a food containing no less than 700 mL/L of wine as defined in this Standard, which has been formulated, processed, modified or mixed with other foods such that is not wine.”

## 1.2 FOOD ADDITIVES

### What is a food additive?

Standard 1.3.1 of the Food Standards Code controls the additives that may be used in winemaking. A food additive can only be added to wine where expressly permitted in this standard.

A food additive is any substance not normally consumed as a food in itself and not normally used as an ingredient of food, but which is intentionally added to a food to achieve one or more specified technological functions. It or its by-products may remain in the food. Food additives must meet the identity and purity standards set out in Standard 1.3.4.

### How can food additives be used?

Food additives can only be used:

- to perform one or more technological functions;
- at a level that does not exceed the maximum level necessary to achieve one or more technological functions under conditions of Good Manufacturing Practice (GMP);
- in compliance with any conditions, restrictions or maximum permitted levels specified in the standard.

The following extract from Schedule 5 to Standard 1.3.1 Food Additives outlines the key technological functions that may be performed by food additives used in wine production.

FUNCTIONAL CLASS	DEFINITION
<b>Sub-Classes</b>	
<b>Acidity regulator</b>	
<b>acid, alkali, base, buffer, buffering agent, pH adjusting agent</b>	alters or controls the acidity or alkalinity of a food
<b>Antioxidant</b>	
<b>antioxidant, antioxidant synergist</b>	retards or prevents the oxidative deterioration of a food
<b>Colour fixative</b>	
<b>colour fixative, colour stabiliser</b>	stabilises, retains or intensifies an existing colour of a food
<b>Colouring</b>	adds or restores colour to foods
<b>Preservative</b>	
<b>anti-microbial preservative, anti-mycotic agent, bacteriophage control agent, chemosterilant, disinfection agent</b>	retards or prevents the deterioration of a food by micro organisms
<b>Sequestrant</b>	forms chemical complexes with metallic ions
<b>Stabiliser</b>	
<b>binder, firming agent, water binding agent, foam stabiliser</b>	maintains the homogeneous dispersion of two or more immiscible substances in a food

Additives may be carried over from other ingredients used in the production of a wine, as well as being added directly. In any case, the level of additive must not exceed the level permitted for the final product.

Two or more additives may be used in combination to achieve the same technological function. In this case, the sum of the quantities obtained by dividing the amount of each food additive used by the maximum permitted level for that food additive must not exceed 1.

### Permitted additives

The Appendices to this document sets out the food additives permitted for use in wine production, and the conditions, restriction and maximum levels for their use. Where a maximum level is specified, the level refers to the maximum amount which may be present in the wine as sold.

The maximum level for many food additives is specified as “good manufacturing practice” (GMP). GMP is a limit and it does not permit excessive usage or poor winemaking practices. The Codex Alimentarius Commission Procedural Manual sets out the

following relevant criteria for use in assessing compliance with Good Manufacturing Practice:

- the quantity of additive added to food shall be limited to the lowest possible level necessary to accomplish its desired effect;
- the quantity of the additive that becomes a component of food as a result of its use in the manufacture, processing or packaging of a food and which is not intended to accomplish any physical, or other technical effect in the finished food itself, is reduced to the extent reasonably possible; and
- the additive is prepared and handled in the same way as a food ingredient.

The manner in which a food is intended to be presented (e.g. by the use of such quality descriptors as natural, pure, traditional etc) may affect the type and level of food additives that could be used in accordance with GMP. Similarly, the type and level of food additives used may affect the way in which a food may be presented (e.g. the use of sulphites above 10ppm requires labelling).

### 1.3 PROCESSING AIDS

#### What is a processing aid?

Standard 1.3.3 of the Food Standards Code regulates the use of processing aids in food manufacture. A processing aid can only be used for wine production where expressly permitted in this Standard.

Processing aids are substances that are used in the processing of raw materials, foods or ingredients to fulfil a technological purpose relating to treatment or processing, but do not perform a technological function (i.e. as set out under “Food Additives” above) in the final food.

Processing aids must meet the identity and purity standards set out in Standard 1.3.4.

#### How can processing aids be used?

Processing aids can only be used:

- to fulfil a technical purpose related to treatment or processing of wine;
- in compliance with any conditions, restrictions or maximum permitted levels specified in the standard; and
- at the lowest level necessary to achieve the relevant technical function, irrespective of any maximum permitted level specified.

#### Permitted processing aids

A wide range of processing aids are permitted for winemaking. Appendix 1 summarises the main processing aids used in wine production. For a complete list, consult Standard 1.3.3.

The maximum level for many processing aids is specified as “good manufacturing practice” (GMP). GMP is a limit and it does not permit excessive usage or poor winemaking practices. For guidance on GMP, see the section on “Food Additives”.

### 1.4 CONTAMINANTS AND NATURAL TOXICANTS

Standard 1.4.1 establishes the general principle that levels of contaminants and natural toxicants in all foods should be kept As Low As Reasonably Achievable (the ALARA principle) and sets out the maximum levels of specified metal and non-metal contaminants and natural toxicants that may be present in certain foods.

Maximum levels for contaminants and natural toxicants in major markets are set out in Appendix 1.

#### Maximum levels for wine

There is only one maximum level that applies to wine. Red, white and fortified wines must not exceed 3 g of methanol per litre of ethanol.

#### Other contaminants

Other contaminants (including metals such as arsenic, cadmium, copper, lead, mercury and tin) do not have maximum levels set in respect of wine. However, levels of these contaminants in wine must be as low as reasonably achievable.

### 1.5 AGRICULTURAL CHEMICAL RESIDUES

#### Who is responsible for residues?

Maximum residue levels (MRLs) for agricultural chemicals applying to wine sold in New Zealand are governed by the New Zealand (Maximum Residue Limits of Agricultural Chemicals) Standard.

#### Growers must:

- ensure that agricultural chemicals are applied in accordance with label requirements, including withholding periods (pre-harvest intervals); and
- maintain a record of applications of agricultural chemicals (spray diary).

#### Winemakers must:

- ensure that wine released for sale in New Zealand complies with the maximum residue limits specified in the Standard (NB: MRLs in New Zealand are established for grapes rather than wine. However, the MRLs for grapes are in practice applied to finished wine as well. With a few exceptions, this is the case in most parts of the world);
- ensure that export wine complies with the maximum residue limits applying in the destination market.

We strongly recommend that winemakers monitor the timing and levels of agricultural chemical applications through spray diaries to ensure that wines released for sale comply with MRLs. (NB: levels of many agricultural chemicals will reduce through the winemaking process, and it is permissible to blend wines to achieve residue levels in finished wine that are within MRLs.)

We also strongly recommend that winemakers work with growers to ensure that the levels of residue in their wines are kept to the lowest level possible.

#### **Where do I find information on MRLs?**

New Zealand Winegrowers publishes an annual Export Wine Grape Spray Schedule and an Agrichemical Spray Diary to assist growers and wineries to comply with MRLs in all markets. This is available free of charge to all members.

### **1.6 FOOD SAFETY AND WINERY HYGIENE**

Food safety and winery hygiene are regulated under the Wine Act 2003, the Wine Regulations 2006, the Wine (Specifications) Notice 2006 and through the registration of Wine Standards Management Plans. For more information go to:

<http://www.foodsafety.govt.nz/industry/sectors/wine/making-wine/index.htm>

### **1.7 STANDARDS OF FILL**

Standards of fill are regulated by the Ministry of Consumer Affairs under the Weights and Measures Regulations 1999.

The adequacy of fill levels for wine are measured on the basis of the average volume of bottles in a particular lot. There are three basic rules:

- First, the actual contents of the packages in a lot must not be less, on average, than the stated quantity. They can, however, be more on average than the stated quantity.
- Second, no more than 2.5% of the packages in a lot may be non-standard. A package is non-standard if the quantity is less than the stated quantity on the package by more than a tolerable deficiency. For a 750ml bottle, the tolerable deficiency is 15ml.
- Third, there must be no inadequate packages. A package is inadequate if the quantity of goods is less than the stated quantity on the package by more than twice the tolerable deficiency. For a 750ml bottle, a deficiency of 30ml will make it an inadequate package.

These averages can be determined on the basis of samples. Sample ranges are specified in the legislation depending on the size of the lot. For further information, see the Ministry of Consumer Affairs Fact Sheet at:

[www.consumeraffairs.govt.nz/measurement/businessinfo/avquantsystem.html](http://www.consumeraffairs.govt.nz/measurement/businessinfo/avquantsystem.html)

## 2 EXPORTS

In principle, wines exported from New Zealand must comply with the winemaking rules applicable in New Zealand and in the destination market. However, there are exceptions to this principle where the New Zealand Government has entered into agreements with foreign Governments to mutually accept each other's winemaking practices.

All exporters to all markets need to comply with the export eligibility requirements set out in the New Zealand Grape Wine

Export Code: <http://www.foodsafety.govt.nz/industry/sectors/wine/exporting/grape/>

### 2.1 MAKING WINE FOR MULTIPLE MARKETS

A large proportion of the wine produced in New Zealand is intended for export. However, New Zealand winemaking rules are more flexible than those applying in many other markets, and winemaking practices may need to be adjusted to meet the rules in destination markets. It is often difficult to know in advance all of the markets which a wine will eventually be sold in, but it is helpful to keep in mind some of the major variables across different markets. The specific limits that apply to key markets are set out in Appendix 1. If you are interested in rules for other markets, please contact us.

#### Minimum alcohol

Some markets set minimum levels of alcohol for wine, which can restrict the styles of wine that are sold there. In EU markets, this is 8.5%. In the USA and China it is 7%. In Canada, Chile, South Africa and Argentina, 7% is the minimum for exporters wanting to take advantage of the Mutual Acceptance Agreement on Oenological Practices.

In some markets, a minimum alcohol level is also linked to specific categories of wine, for example fortified wine or the EU categories of "wine of overripe grapes" and "wine of raisined grapes".

Reduction of alcohol by technical means such as reverse osmosis or spinning cone is also controlled in the EU.

#### Maximum alcohol/sugar

Some markets set maximum levels and category thresholds for alcohol and sugar content (or a combination of the two). For USA, Canada, Chile, South Africa and Argentina the maximum actual alcohol for exporters wanting to take advantage of the Mutual Acceptance Agreement on Oenological Practices is 24%. For EU markets, the maximum is 20% total alcohol - i.e. actual alcohol plus potential alcohol of the unfermented sugars. Specific thresholds apply for product sub-categories such as fortified wine and some types of sweet wine. In China, there is a hierarchy of product categories based on sugar levels.

#### Adjusting alcohol/sugar levels

Techniques for adjusting alcohol (or potential alcohol) and sugar levels are closely regulated in the EU market in particular. A special guide to adjusting alcohol and sugar levels for the EU market is provided at Appendix 4.

#### Volatile acidity

New Zealand does not directly regulate volatile acidity levels, although excess VA can be a factor that causes a wine to become ineligible for export. In EU markets, there are specific limits for VA that apply to specific types of wine. China has a general limit of 1.2 g/l.

#### Sulphur dioxide

Every country has limits on sulphur dioxide. Generally these are based on total rather than free sulphur dioxide levels and in many markets these will be graduated based on the sugar content of the wine. Some countries, notably Taiwan and Japan, do not appear to accommodate very sweet wines in their sulphur dioxide requirements, which can prevent such wines from entering the market.

#### Addition of tartaric acid

There are a number of forms of tartaric acid, however not all forms of tartaric acid are permitted for winemaking in all markets. The relevant forms are:

- L (+) tartaric acid - This is the naturally occurring form of tartaric acid. It is occasionally known as dextrotartaric acid or dTartaric acid but should not be confused with D(-) tartaric acid.
- D (-) tartaric acid - This is the mirror image form. It is also sometimes known as levotartaric acid and Tartaric acid but should not be confused with L(+) tartaric acid.
- Mesotartaric acid - This is the achiral form of tartaric acid.
- DL tartaric acid - This is a 1:1 mixture of the L(+) and D(-) forms, also known as racemic acid.

L(+) tartaric acid is the **only** form of tartaric acid permitted for all markets, including NZ, Australia, Canada, USA and the EU. Some markets may permit D(-) tartaric acid, however we recommend that L(+) tartaric acid should be used in the production of a multi-market wine.

DL tartaric acid is also permitted in some markets for stabilisation purposes. Mesotartaric acid is not permitted in any market as far as we are aware.

Metatartaric acid is a product derived from the heating of tartaric acid, but it is not the same as tartaric acid for the purpose of winemaking rules. It is permitted in most markets for stabilisation purposes.

#### Copper

The New Zealand limit for copper in wine is good manufacturing practice, which means the lowest amount necessary to achieve a technical function. There are also specific controls on the use of copper sulphate as an agrichemical applied in the vineyard. Many other markets have specific limitations on copper sulphate and other copper-based products as agrichemicals and as wine additives, with a total residual copper level fixed as a result of all uses. In the EU and China this is 1mg/l. In Japan, the use of copper sulphate is not permitted (although we are working with international colleagues to seek approval).



## Adventitious substances

Many wines will contain minute traces of substances that are not added during the winemaking process. In most cases these will be naturally occurring - e.g. minerals and other trace elements - or as by-products or trace residues from the growing or winemaking processes.

Occasionally, these can create problems for exporters. Issues have been encountered by some wine exporting countries, with regard to the presence of elements such as manganese and iron in certain markets for example. This is comparatively rare for New Zealand wine and is most likely to take the form of a request for analysis to detect certain substances. If you do receive such a request, please contact New Zealand Winegrowers to discuss how it can be addressed.

## Other practices

In general, the range of winemaking practices permitted in major wine exporting countries has harmonised to a considerable degree over past decades. In the EU market, the major point of difference is not the practices themselves but the limits and conditions of use. There are a few exceptions such as the use of hydrogen peroxide which is not permitted in the EU. In Asian countries it is far more difficult to determine which specific practices are permitted.

### 2.2 AUSTRALIA

Wine that is made in accordance with New Zealand winemaking practices may legally be sold in Australia. This principle is enshrined in the Food Standards Code, the Trans-Tasman Mutual Recognition Arrangement and the Mutual Acceptance Agreement on Oenological Practices.

### 2.3 ARGENTINA, CANADA, CHILE, USA, SOUTH AFRICA & GEORGIA

Along with Australia, the above countries are signatories to the World Wine Trade Group Mutual Acceptance Agreement on Oenological Practices. This means that wines made in accordance with New Zealand winemaking practices may legally be sold in all of these countries.

### 2.4 EUROPEAN UNION

Wine that is exported to European Union Member States must be made in accordance with the European Union rules applying to winemaking practices. Copies of the key items of EU wine legislation can be found here: [ec.europa.eu/agriculture/markets/wine/leg/index\\_en.htm](http://ec.europa.eu/agriculture/markets/wine/leg/index_en.htm)

Because the New Zealand Government is required to certify compliance with EU definitions, winemaking practices and certain labelling terms, **the Ministry of Primary Industries** has issued a Notice of Overseas Market Access Requirement (OMAR). The OMAR sets out the specific aspects of the EU rules that it is required to certify as well as the actions that must be taken by New Zealand wine exporters in order to comply with those rules. A copy of the OMAR can be found here: [www.foodsafety.govt.nz/password-protected/omars/eun/wine/](http://www.foodsafety.govt.nz/password-protected/omars/eun/wine/)

A key element of the EU OMAR is compliance with EU winemaking and definition rules as they are set out in Annex I of this document.

Compliance with the OMAR is a legal obligation, and there are a number of other legal obligations that apply to exporters to this market over and above the issue of winemaking practice. There are set out in the OMAR and on the NZFSA website.

### 2.5 BRAZIL

Wine that is exported to Brazil must be made in accordance with Brazilian rules applying to winemaking practices. Because the New Zealand Government is required to certify compliance with EU definitions, winemaking practices and certain labelling terms, **the Ministry of Primary Industries** has issued a Notice of Overseas Market Access Requirement (OMAR). The OMAR sets out the specific aspects of the Brazilian rules that it is required to certify as well as the actions that must be taken by New Zealand wine exporters in order to comply with those rules. A copy of the OMAR can be found here: [www.foodsafety.govt.nz/password-protected/omars/bra/wine/](http://www.foodsafety.govt.nz/password-protected/omars/bra/wine/)

As with the EU OMAR, compliance is a legal obligation, and there are a number of other legal obligations that apply to exporters to this market over and above the issue of winemaking practice. There are set out in the OMAR and on the NZFSA website.

### 2.6 ASIA

While many Asian markets will have some form of regulation with which exporters are supposed to comply, these are often incomplete and/or not specific to wine and in many cases it can be extremely difficult to find useful information about these regulations. New Zealand Winegrowers holds limited information about some markets, which can be provided upon request.

The best information we have on hand regarding winemaking details for Japan and China are provided in Appendix 1. Some commonly used winemaking practices are not permitted for use in wine sold in Japan, including copper sulphate. Other winemaking practices permitted for alcoholic beverages generally may be used, although if not permitted specifically for wine the product will be no longer be classified as wine. This means that "wine" may not be used on the label and the tax classification may be changed.

# APPENDIX 1 – WINEMAKING PRACTICES FOR STANDARD WINE IN THE MAJOR MARKETS

This list relates to non-fortified, still wine only (including sweet wine). Separate information is available in relation to sparkling and liqueur wines. The list covers the processing aids that are generally likely to be used for wine production in NZ. Some other processing aids that may in theory be permitted for wine production in New Zealand, although they have not been listed as they are not in common use. If you have any queries regarding such a practice, please do not hesitate to contact us. Note that the terminology used is generally that of the regulations in question. In particular, the EU/OIV rules refer to the liquid extracted from grapes up to the point of fermentation as “grape must”, whereas in the New Zealand rules this product is referred to as “grape juice”.



OENOLOGICAL PRACTICE		NZ, ARGENTINA, AUS, CANADA, CHILE, USA, SOUTH AFRICA & GEORGIA	EU /OIV	JAPAN	CHINA
DEFINITIONS/ ANALYTICAL PARAMETERS					
Wine		The product of the complete or partial fermentation of fresh grapes, or a mixture of that product and products derived solely from grapes.	Wine is obtained exclusively from the total or partial alcoholic fermentation of fresh grapes, whether or not crushed, or of grape must. (EU)	Definition includes grape and fruit wines made with or without addition of sugars and brandy.	Fermented wines that have fresh grapes or grape juice as raw material, are made through full or partial fermentation, and contain a certain degree of alcohol content.
Minimum Alcohol		No minimum for NZ & Australia. Minimum of 7% actual alcohol applies for other markets.	8.5% actual alcohol. (EU)	1% actual alcohol.	7% actual alcohol.
Maximum Alcohol		No maximum for NZ & Australia. Maximum of 24% actual alcohol applies for other markets.	Total of actual alcohol plus potential alcohol of unfermented sugars: 15%  NB: Wine made without enrichment may be permitted a total alcohol of up to 20%. However, for such wines we recommend using the designations “wine of overripe grapes” or “wine of raisined grapes” as appropriate to avoid trade problems.	Wine made from fermentation of fruits or fruits and water : 20% Wine made with the addition of sugars: 15% Sparkling & fortified wine: not specified.	Not specified.
Total Acidity		No limit.	Tartaric acid not less than 3.5 g/l or 46.6 milliequivalents per litre. (EU)	Not specified.	Not specified.
Volatile Acidity		No limit.	If total of actual alcohol plus potential alcohol of unfermented sugars is less than 13%: 20 milliequivalents per litre.  If more than 13%: as determined by export eligibility process (sensory analysis). (EU)	Not specified.	No more than 1.2 g/L.
Dry extract		No limit.	No limit.	Not specified.	Dry Leachate (g/L) ≥ White Wine 16.0 Pink Wine 17.0 Red Wine 18.0
Wine of overripe grapes		Not defined.	Wine from overripe grapes is produced without enrichment. • It has a natural alcoholic strength of more than 15% vol. • It has a total alcoholic strength of no less than 15 % vol. and an actual alcoholic strength of not less than 12% vol. (EU)	Specific definitions apply to products with different degrees of sweetness. See NZW Labelling Guide.	Specific definitions apply to products with different degrees of sweetness. See NZW Labelling Guide.
Wine of raisined grapes		Not defined.	Wine from raisined grapes is produced without enrichment, from grapes left in the sun or shade for partial dehydration. • It has a natural alcoholic strength of at least 16% vol (or 272 grams sugar / litre). • It has a total alcoholic strength of at least 16 % vol. and an actual alcoholic strength of at least 9% vol. (EU)	Specific definitions apply to products with different degrees of sweetness. See NZW Labelling Guide.	Specific definitions apply to products with different degrees of sweetness. See NZW Labelling Guide.

## FERMENTATION

### Ammonium phosphates

Food additive.  
Limit: GMP.



Diammonium phosphate only

- Up to completion of fermentation.
- No more than 1 g/l (expressed in salts).
- Ammonium salts may be used in combination up to total limit of 1g/l. (EU)

Acidic potassium phosphate, Acidic calcium phosphate, Ammonium dihydrogen phosphate.

Permitted.



### Ammonium sulphate

Processing aid.  
Limit: GMP.

Up to completion of fermentation.  
No more than 1 g/l (expressed in salts).

Ammonium salts may be used in combination up to total limit of 1g/l. (EU)

Permitted.

### Ammonium bisulphite

Ammonium sulphite permitted.

Up to completion of fermentation.  
No more than 0.2 g/l (expressed in salts) and up to the limits for sulphur dioxide.  
Ammonium salts may be used in combination up to total limit of 1g/l. (EU)

Not permitted

Not permitted

### Biotin

Processing aid.  
Limit: GMP.

Not permitted. (Except as yeast cell wall preparation)

Permitted

"Vitamin B family" permitted.

### Calcium pantothenate

Processing aid (pantothenic acid).  
Limit: GMP.

Not permitted. (Except as yeast cell wall preparation)

Permitted

"Vitamin B family" permitted.

### Fresh lees

In accordance with definition of wine.

Production of dry wines only.  
Sound & undiluted containing yeast from recent vinification of dry wine.  
No more than 5% of volume of treated product. (EU)

Unclear

Unclear

### Inactivated yeasts

Processing aid.  
Limit: GMP.

Up to completion of fermentation. (EU)

Permitted

Unclear

### Inositol

Processing aid.  
Limit: GMP.

Calcium phytate (salt of phytic acid (inositol hexakisphosphate)) permitted. See under Calcium phytate.

Phytic acid (inositol hexakisphosphate) permitted. See under Calcium phytate.

Not permitted.

### Malolactic bacteria

In accordance with definition of wine.

Permitted. (EU)

Permitted (Lactic acid bacteria).

Unclear.

### Niacin

Processing aid.  
Limit: GMP.

Not permitted. (Except as yeast cell wall preparation)

Permitted

"Vitamin B family" permitted.

### Pyridoxine

Processing aid (pyridoxine hydrochloride).  
Limit: GMP.

Not permitted. (Except as yeast cell wall preparation)

Not permitted.

"Vitamin B family" permitted.

### Thiamin

Processing aid.  
Limit: GMP.

Up to completion of fermentation.  
As thiamin hydrochloride. No more than 0.6 mg/l (expressed in thiamin) for each treatment. (EU)

Thiamine hydrochloride permitted

"Vitamin B family" permitted.

### Wine yeasts

In accordance with definition of wine.

Up to completion of fermentation. (EU)

Permitted

In accordance with definition of wine.

### Yeast cell wall preparations



Processing aid.  
Limit: GMP.

No more than 40 g/hl. (EU)






Permitted






Unclear.






NB. Vitamin B yeast nutrients may be present in yeast cell wall preparations as derivatives of yeast cell walls. If in doubt, check with your supplier to confirm products or suitable for use in the EU.

PRESERVATION				
				
<b>Argon</b>	Processing aid. Limit: GMP.	Either alone or in combination with other permitted inert gases to create an inert atmosphere and handle the product shielded from air. (EU)		Not permitted.
<b>Ascorbic acid</b>	Food additive. Limit: GMP.	L-Ascorbic acid Maximum content in wine thus treated and placed on the market: 250 mg/l.	L-Ascorbic Acid	Not permitted.
<b>Calcium ascorbate</b>	Food additive. Limit: GMP.	Ascorbic acid only permitted.	Ascorbic acid only permitted.	Not permitted.
<b>Carbon dioxide</b>	Food additive. Limit: GMP.	In the case of still wines the maximum carbon dioxide content in the wine so treated and placed on the market is 3 g/l, while the excess pressure caused by the carbon dioxide must be less than 1 bar at a temperature of 20 °C	Permitted.	Permitted.
<b>Erythorbic acid</b>	Food additive. Limit: GMP.	Not permitted.	Permitted as antioxidant only	Permitted. Limit: 0.15 g/kg
<b>Nitrogen</b>	Processing aid. Limit: GMP.	Use of carbon dioxide, argon or nitrogen, either alone or combined, in order to create an inert atmosphere and to handle the product shielded from the air	Permitted	Permitted.
<b>Sodium ascorbate</b>	Food additive. Limit: GMP.	Ascorbic acid permitted.	Sodium L-ascorbate permitted	Sodium isoascorbate permitted: Limit 15 g/kg.
<b>Sodium erythorbate</b>	Food additive. Limit: GMP.	Not permitted.	Erythorbic acid permitted	Sodium isoascorbate permitted: Limit 15 g/kg.
<b>Sodium sulphites</b>	Food additive. • 250 mg/kg for wines with less than 35g/L residual sugar • 400 mg/kg for wines with more than 35 g/L residual sugar	Not permitted	Not permitted.	Not permitted.
<b>Sulphur dioxide, potassium bisulphite or potassium metabisulphite</b>	Food additive. • 250 mg/kg for wines with less than 35g/L residual sugar • 400 mg/kg for wines with more than 35 g/L residual sugar	<ul style="list-style-type: none"> <li>150 mg/L for red wines with less than 5g/L sugar content</li> <li>200 mg/L for white and rosé wines with less than 5g/L sugar content</li> <li>200 mg/L for red wines with 5g/L or more sugar content</li> <li>250 mg/L for white and rosé wines with 5g/L or more sugar content</li> <li>400 mg/L for sweet wines with more than 45g/L sugar content</li> </ul>	Limit: 350 mg/kg	Limit: 250 mg/kg. Sweet wine (i.e. more than 45 g/l sugar) may contain up to 400 mg/kg.



FILTRATION & CLARIFICATION								
<b>Agar</b>				Processing aid. Limit: GMP.	Not permitted.		Permitted.	Permitted.
<b>Alginate</b>				Processing aid. Limit: GMP.	Calcium and potassium alginate permitted for the manufacture of all categories of sparkling and semi-sparking wines obtained by fermentation in bottle and with the lees separated by disgorging		Sodium alginate permitted	Not permitted.
<b>Bentonite</b>				Processing aid. Limit: GMP.		Permitted.	Max residue no more than 0.5% of total product	Permitted.
<b>Beta-glucanase</b>				Processing aid. Limit: GMP.		3 g of the enzymatic preparation containing 25 % total organic solids per hectolitre.	Permitted.	Permitted.
<b>Casein</b>				Processing aid. Limit: GMP.		Permitted.	Casein, sodium caseinate	Sodium caseinate permitted.
<b>Cellulose</b>				Processing aid. Limit: GMP.		Permitted.	Microfibrillated cellulose	Permitted.
<b>Centrifuging</b>				Permitted.	With or without inert filtering agent. Use of agent must not leave undesirable residues.		Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Chitosan</b>				Processing aid Limit: GMP	Permitted		Not permitted	Not permitted
<b>Diatomaceous earth</b>				Processing aid. Limit: GMP.	Permitted. (OIV)		Max residue no more than 0.5% of total product	Permitted.
<b>Egg albumin</b>				Processing aid. Limit: GMP.	Permitted.		Permitted	Permitted.
<b>Gum arabic</b>				Food additive. Limit: GMP.	Permitted. (OIV)		Permitted	Permitted.
<b>Gelatine</b>				Processing aid. Limit: GMP.	Permitted.		Permitted	Permitted.
<b>Isinglass</b>				Processing aid. Limit: GMP.	Permitted.		Collagen permitted "(includes isinglass).	Not permitted.
<b>Kaolin (aluminium silicate)</b>				Processing aid. Limit: GMP.	Permitted.		Activated acid clay permitted Max residue no more than 0.5% of total product	Permitted.
<b>Milk</b>				Processing aid. Limit: GMP.	Permitted. (OIV)		Unclear	Permitted.
<b>Microfiltration (ultrafiltration)</b>				Permitted.	Mineral or organic membranes of a porosity greater than or equal to 0.2 µm (OIV)		Japanese rules do not specify winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Pectolytic enzymes</b>				Processing aid. Limit: GMP.	Permitted.		Permitted.	Betaglucanase and pectinase permitted.
<b>Perlite</b>				Processing aid. Limit: GMP.	Permitted. (OIV)		Max residue no more than 0.5% of total product either alone or in combination with other clarifying agents	Permitted.
<b>Plant proteins</b>				Processing aid. Limit: GMP.	Plant protein from wheat, peas & potato only.		Pea protein permitted	Not permitted.
<b>Silicon dioxide</b>				Processing aid. Limit: GMP.	As a gel or colloidal solution.		To be removed from product prior to completion.	Silica gel & silicon dioxide permitted.
<b>Tannin</b>				Food additive. Limit: GMP.	Permitted.		Permitted	Permitted as a processing aid only.
<b>Yeast protein extracts</b>				Processing aid Limit GMP	Permitted		Not permitted	Not permitted

ACIDIFICATION						
Acidification by cation exchanger treatment						
	Ion exchange resins. Processing Aid. Limit: GMP	<ul style="list-style-type: none"><li>The treatment will be performed using cation exchange resins regenerated in the acid cycle.</li><li>The treatment must be limited to the elimination of excess cations</li><li>To avoid the production of fractions of must, the treatment will be performed continuously, with in-line incorporation of the treated must into the original must.</li><li>As an alternative, the resin could be directly introduced into the tank of must, in the quantities required, then separated by all appropriate technical methods.</li><li>The acidification must be carried under condition that the initial acidity is not raised by more than 54 meq/L. When must and wine are acidified, the cumulative net increase must not exceed 54 meq/L</li></ul>			Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
Citric acid	Food additive. Limit: GMP.	<ul style="list-style-type: none"><li>Maximum content in wine thus treated and placed on the market: 1 g/l</li></ul>			Permitted	Dry, semi-dry, semi-sweet wine 1 g/l total in finished product. Sweet wine 2 g/l total in finished product.
Fumaric acid	Food additive. Limit: GMP	Not permitted.			Not permitted	No information available.
Malic acid	Food additive. Limit: GMP.	<ul style="list-style-type: none"><li>Acidification of must and wine permitted.</li><li>L malic acid or DL malic acid only</li><li>Total acidification of musts: 15g/L expressed as tartaric acid</li><li>Total acidification of wine: 25g/L expressed as tartaric acid</li><li>Acidification and enrichment, except by way of derogation, and acidification and deacidification of one and the same product are mutually exclusive practices.</li></ul>			Permitted during vinification.	Permitted.
Lactic acid	Food additive. Limit: GMP.	<ul style="list-style-type: none"><li>Acidification of must and wine permitted.</li><li>Total acidification of musts: 15g/L expressed as tartaric acid</li><li>Total acidification of wine: 25g/L expressed as tartaric acid</li><li>Acidification and enrichment, except by way of derogation, and acidification and deacidification of one and the same product are mutually exclusive practices.</li></ul>			Permitted	Permitted.
Tartaric acid	Food additive. L(+) tartaric acid only. Limit: GMP.	<ul style="list-style-type: none"><li>Acidification of must and wine permitted.</li><li>L(+) tartaric acid only.</li><li>Grape/wine derived tartaric acid only.</li><li>Total acidification of musts: 15g/L expressed as tartaric acid</li><li>Total acidification of wine: 25g/L expressed as tartaric acid</li><li>Acidification and enrichment, except by way of derogation, and acidification and deacidification of one and the same product are mutually exclusive practices.</li></ul>			Permitted	L(+) Tartaric acid permitted.

DE-ACIDIFICATION									
Calcium carbonate				Calcium carbonates. Food additive. Limit: GMP.	• De-acidification of wines may be carried out only up to a limit of 1 g/l expressed as tartaric acid, or 13.3 milliequivalents per litre.			No more than 1% of total product.	Permitted.
Calcium tartrate				Processing aid. Limit: GMP.	• De-acidification of wines may be carried out only up to a limit of 1 g/l expressed as tartaric acid, or 13.3 milliequivalents per litre.			Not permitted.	Not permitted.
De-acidification using an electromembrane process (electrodialysis with bipolar and anionic membranes)				Permitted.	Permitted for must and wine.			Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
Potassium tartrate				Food additive. Limit: GMP.	• De-acidification of wines may be carried out only up to a limit of 1 g/l expressed as tartaric acid, or 13.3 milliequivalents per litre.			Potassium L-bitartrate and Potassium DL-bitartrate permitted post vinification.	Potassium hydrogen tartrate permitted.
Potassium bicarbonate				Potassium carbonates. Food additive. Limit: GMP.	• De-acidification of wines may be carried out only up to a limit of 1 g/l expressed as tartaric acid, or 13.3 milliequivalents per litre.			Potassium carbonate permitted post vinification.	Postassium hydrogen carbonate permitted.
Potassium sodium tartrate				Food additive. Limit: GMP.	Not permitted.			Not permitted.	Not permitted.
ENRICHMENT									
Grape must or concentrate addition				Grape juice and grape juice products may be added to wine during production. In order to retain the "NZ Wine" status of the product, grape must or concentrate should be sourced from New Zealand. (See Labelling Guide)	See Appendix 4.	Permitted up to initial sugar level of fruit. (Note that enrichment above this level is permitted for wines defined as "sweet/fortified wines", which are in a higher tax category).			In accordance with definition of wine.
Sucrose addition (chaptalisation)				Sugars may be added to wine during production.	See Appendix 4.	Permitted up to initial sugar level of fruit. (Note that enrichment above this level is permitted for wines defined as "sweet/fortified wines", which are in a higher tax category).			Unclear.
Concentration of grape must				Permitted.	See Appendix 4.	Japanese rules do not specify physical winemaking processes.			Chinese rules do not specify physical winemaking processes.
Cryoselection (freeze concentration of grapes)				Permitted.	See Appendix 4.	Japanese rules do not specify physical winemaking processes.			Chinese rules do not specify physical winemaking processes.
Cryoextraction (freeze concentration of wines)				Permitted.	See Appendix 4.	Japanese rules do not specify physical winemaking processes.			Chinese rules do not specify physical winemaking processes.

## SWEETENING/ACID ADJUSTMENT



### Acid adjustment (post-fermentation)

May be carried out using sugars, grape juice or grape juice products.

In order to retain the "NZ Wine" status of the product, grape must or concentrate should be sourced from New Zealand. (See Labelling Guide)



See Appendix 4.



Permitted up to initial sugar level of fruit. (Note that enrichment above this level is permitted for wines defined as "sweet/fortified wines", which are in a higher tax category).



Unclear.



### Sweetening (post-fermentation)

May be carried out using sugars, grape juice or grape juice products.

In order to retain the "NZ Wine" status of the product, grape must or concentrate should be sourced from New Zealand. (See Labelling Guide)

See Appendix 4.

Permitted up to initial sugar level of fruit. (Note that enrichment above this level is permitted for wines defined as "sweet/fortified wines", which are in a higher tax category).

Unclear.

## STABILISATION

### Calcium tartrate

Processing aid.  
Limit: GMP.

To assist the precipitation of tartaric salts. No more than 200g/hl.

Not permitted.

Not permitted.

### Potassium bitartrate / potassium hydrogen tartrate (cream of tartar)

Processing aid (Potassium tartrates).  
Limit: GMP.

Permitted.

Potassium L-bitartrate and Potassium DL-bitartrate permitted post vinification.

Potassium hydrogen tartrate permitted.

### Cation exchange.

Ion exchange resins.  
Processing aid.  
Limit: GMP

To ensure tartaric stabilisation.

Ion exchange resins permitted. To be removed before the preparation of the finished food.

Ion exchange resins permitted.

### Cellulose gums (carboxymethylcellulose)

Food additive.  
Limit: GMP

To ensure tartaric stabilisation.  
No more than 100 mg/l.

Not permitted.

Not permitted.

### Citric acid

Food additive.  
Limit: GMP.

For wine stabilisation purposes  
Maximum content in wine placed on the market 1g/l.

Permitted

Permitted.

### Cold stabilisation

Permitted.

Permitted (OIV)

Japanese rules do not specify physical winemaking processes. Chinese rules do not specify physical winemaking processes.

### Electrodialysis treatment.

Permitted.

To ensure tartaric stabilisation.

Japanese rules do not specify physical winemaking processes. Chinese rules do not specify physical winemaking processes.

### Gum arabic (acacia)






Food additive.  
Limit: GMP.

Permitted.

Permitted.

Permitted.



STABILISATION - CONTINUED							
<b>Dimethyl dicarbonate</b>	Food additive. Limit: 200 mg/kg.	No more than 200 mg/l with no detectable residues in the wine placed on the market	Permitted.	Permitted.		Not permitted.	Not permitted.
<b>Heat treatments (pasteurisation)</b>	Permitted.					Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Metatartaric acid</b>	Food additive. Limit: GMP.	No more than 100 g/l.				Not permitted.	Not permitted.
<b>Sorbic acid</b>	Sorbic acid and sodium, potassium and calcium sorbates. Food additive. Limit: 200 mg/kg	As potassium sorbate. Maximum content in wine placed on market 200 g/l.				Sorbic acid or potassium sorbate. Limit: 0.2 mg/kg.	Sorbic acid or potassium sorbate. Maximum content in wine placed on market 200 g/l.
<b>Yeast mannoproteins</b>	Food additive. Limit: 400 mg/kg.	To ensure the tartaric and protein stabilisation of wines.				Yeast cell wall / yeast cell membrane permitted.	Not permitted.
OTHER CELLAR TREATMENTS							
<b>Aeration or oxygenation with gaseous oxygen</b>	Permitted.	Permitted.				Oxygen permitted. Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Alcohol</b>	Brandy or other spirit may be added in the production of fortified wine.	Addition of alcohol is prohibited except in relation to some categories of liqueur and sparkling wine.				Addition of brandy or spirits permitted up to 10% of initial alcohol level. Additions over this limit are permitted for wines defined as "sweet/fortified wines", which are in a higher tax category.	Addition of grape brandy, food alcohol or grape alcohol permitted for liqueur wines.
<b>Bubbling with argon or nitrogen</b>	Permitted.	Permitted.				Nitrogen permitted. Japanese rules do not specify physical winemaking processes.	Nitrogen permitted.
<b>Calcium phytate</b>	Phytates. Processing aid. Limit: GMP.	No more than 8g/hL. After treatment, wine must contain traces or iron.				Phytic acid permitted.	Not permitted.
<b>Caramels I - IV</b>	Food additive. Limit: GMP.	Not permitted.				Not permitted	Not permitted.
<b>Carbon dioxide addition</b>	Food additive. Limit: GMP.	In the case of still wines the maximum carbon dioxide content in the wine so treated and placed on the market is 3 g/l, while the excess pressure caused by the carbon dioxide must be less than 1 bar at a temperature of 20 °C.				Permitted	Permitted.
<b>Copper sulphate</b>	Processing aid. Limit: GMP.	To eliminate defects of taste or smell in the wine. No more than 1 g/hl, provided that the copper content of the product so treated does not exceed 1 mg/l.				Not permitted.	Maximum level of total copper in final product 1 mg/l.
<b>Charcoal (activated carbon)</b>	Processing aid. Limit: GMP.	Only for musts and new wines still in fermentation, rectified concentrated grape must and white wines. No more than 100 g of dry product per hl.				Permitted.	Permitted.
<b>Cupric citrate</b>	On a bentonite base. Processing aid. Limit: GMP.	To eliminate defects of taste or smell in the wine. No more than 1 g/hl, provided that the copper content of the product so treated does not exceed 1 mg/l.				Not permitted.	Not permitted

## OTHER CELLAR TREATMENTS CONT.



<b>Dimethyl polysiloxane (polydimethylsiloxane)</b>	Processing aid. Limit: GMP.	Not permitted.	Not permitted.	Not permitted.
<b>Elimination of sulphur dioxide by physical processes</b>	Permitted.	Up to completion of fermentation.	Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Ethyl maltol</b>	Food additive. Wine made with other than Vitis vinifera grapes only Limit: 100 mg/kg	Not permitted.	Not permitted.	Not permitted.
<b>Glucose oxidase</b>	Processing aid. Limit: GMP.	Not permitted.	Not permitted.	Permitted.
<b>Grape skin extract</b>	Food additive. Limit: GMP.	Not permitted.	Not permitted.	Not permitted.
<b>Hydrogen peroxide</b>	Processing aid. Limit: 5 mg/kg.	Not permitted.	Not permitted.	Not permitted.
<b>Lysozyme</b>	Processing aid. Limit: GMP.	No more than 500 mg/l (where added to both the must and the wine, the total overall quantity must not exceed 500 mg/l).	Not permitted.	Permitted.
<b>Maltol</b>	Food additive. Wine made with other than Vitis vinifera grapes only Limit: 250 mg/kg	Not permitted.	Not permitted.	Not permitted.
<b>Oak chips</b>	Oak* Processing aid. Limit: GMP. *There is no permission for oak extracts.	Oak chips used must comply with EU requirements . The dimensions of the particles of wood must be such that at least 95 % in weight are retained by a 2 mm mesh filter (9 mesh).	Considered to be an addition of plant material extracts which places wines made using oak chips in the category of "sweet/fortified wine" .	Not permitted.
<b>Oleic acid (anti-foaming agent)</b>	Processing aid. Limit: GMP.	A mixture of mono- and di-glycerides. (OIV)	Not permitted.	Not permitted.
<b>Partial dealcoholisation of wine by separation</b>	Permitted. NB minimum alcohol of 7% applies outside of NZ/Aus.	See Appendix 4.	Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Polyvinylpolypyrrolidone (PVPP)</b>	Processing aid. Limit: 100 mg/kg.	No more than 80 g/hl.	Permitted. To be removed prior to completion.	Permitted.
<b>Potassium ferrocyanide</b>	Processing aid. Limit: 0.1 mg/kg.	After treatment the wine must contain traces of iron.	Not permitted.	Not permitted.
<b>Reduction of the sugar content of musts by separation</b>	Permitted	See Appendix 4.	Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.
<b>Raising</b>	Permitted.	By natural or physical means. (See "wine of raisined grapes" above.)	Japanese rules do not specify physical winemaking processes.	Chinese rules do not specify physical winemaking processes.

## OTHER CELLAR TREATMENTS CONT.



<b>Tannins</b>	Food additive. Limit: GMP.	Permitted.	Permitted.	Permitted as processing aid only.
<b>Urease</b>	Processing aid. Limit: GMP.	To reduce the level of urea in wine intended for prolonged ageing, where its initial urea concentration is higher than 1 mg/l. 75 mg of enzyme preparation per litre of wine treated, not exceeding 375 units of urease per litre of wine. After treatment, all residual enzyme activity must be eliminated by filtering the wine (pore size < 1 µm). (EU).	Permitted.	Not permitted.
<b>Water</b>	Must be "clean" Only permitted to the extent necessary to incorporate any permitted food additive or processing aid.	Not permitted except where required on account of a specific technical necessity.	Permitted for incorporation of processing aids for the purpose of promoting fermentation and preventing unexpected risks.	Unclear.
<b>CONTAMINANTS AND TOXICANTS</b>				
<b>Arsenic</b>	As low as reasonably achievable (ALARA)	0.2 mg/l	No defined limit.	0.05 mg/kg
<b>Boron</b>	ALARA	80 mg/l (expressed as boric acid)	No defined limit.	No defined limit.
<b>Bromine</b>	ALARA	1 mg/l (limit exceeded exceptionally in wines coming from certain vineyards with brackish subsoil)	No information available.	No information available.
<b>Cadmium</b>	ALARA	0.01 mg/l	No defined limit.	No defined limit.
<b>Copper</b>	ALARA	1 mg/l	No defined limit.	1 mg/l
<b>Diethylene glycol / ethylene glycol</b>	No stated limit.	<10 mg/L, to the quantification limit	No information available.	No information available.
<b>Fluoride</b>	ALARA	1 mg/l except for vineyards treated with cryolite in accordance with the national law; in this case the fluoride content shall not exceed 3 mg/l	No information available.	No information available.
<b>Iron</b>	ALARA	No stated limit.	No defined limit.	8 mg/l
<b>Lead</b>	ALARA	0.2 mg/kg	No defined limit.	0.2 mg/l
<b>Malvidol diglucoside</b>	No stated limit.	15 mg/l	No defined limit.	No defined limit.
<b>Manganese</b>	No stated limit			
<b>Mercury</b>	ALARA	No stated limit.	No defined limit.	No defined limit.
<b>Methanol</b>	3 g of methanol per litre of ethanol	400 mg/l for red wines 250 mg/l for white wines and rosés	1 mg/cm <sup>3</sup> (1 mg/ml)	400 mg/l for red wines 250 mg/l for white wines and rosés
<b>Ochratoxin A</b>	No stated limit.	2 µg/L	No defined limit.	No defined limit.
<b>Propylene glycol</b>	No stated limit	Still wines: 150 mg/l Sparkling wines: 300 mg/l	No information available	No information available
<b>Silver</b>	ALARA	<0.1 mg/l	No defined limit.	No defined limit.
<b>Sodium</b>	No stated limit.	80 mg/l	No defined limit.	No defined limit.
<b>Zinc</b>	ALARA	5 mg/l	No defined limit.	No defined limit.

## APPENDIX 2 – RULES FOR SPARKLING WINE EXPORTED TO THE EU

### DEFINITIONS

<b>Sparkling wine</b>	<p>Sparkling wine is obtained from the first or second alcoholic fermentation of fresh grapes, grape must or wine.</p> <p>It has an excess pressure, due to carbon dioxide in solution, of not less than 3 bar when kept at a temperature of 20 °C in closed containers. The carbon dioxide released when the container is opened is derived exclusively from fermentation.</p> <p>It is prepared with cuvées with a total alcoholic strength of not less than 8.5% vol.</p>
<b>Quality sparkling wine</b>	<p>Quality sparkling wine is obtained from the first or second alcoholic fermentation of fresh grapes, grape must or wine.</p> <p>It has an excess pressure, due to carbon dioxide in solution, of not less than 3.5 bar when kept at a temperature of 20 °C in closed containers. The carbon dioxide released when the container is opened is derived exclusively from fermentation.</p> <p>It is prepared with cuvées with a total alcoholic strength of not less than 9% vol.</p>
<b>Quality aromatic sparkling wine</b>	<p>Quality aromatic sparkling wine is quality sparkling wine which is obtained only by making use, when constituting the cuvée, of grape must or grape must in fermentation which are derived from pre-determined grape varieties.</p> <p>It has an excess pressure, due to carbon dioxide in solution, of not less than 3 bar when kept at a temperature of 20 °C in closed containers.</p> <p>It has an actual alcoholic strength of not less than 6% vol. and total alcoholic strength of not less than 10% vol.</p>
<b>Aerated sparkling wine</b>	<p>Aerated sparkling wine is obtained from wine.</p> <p>It releases, when the container is opened, carbon dioxide wholly or partially from an addition of that gas.</p> <p>It has an excess pressure due to carbon dioxide in solution of not less than 3 bar when kept at a temperature of 20 °C in closed containers.</p> <p>NB: Aerated sparkling wine must follow the winemaking rules applicable to standard wine. The rules specific to sparkling wine (e.g. the addition of tirage and expedition liqueurs) do not apply.</p>
<b>Semi-sparkling wine</b>	<p>Semi-sparkling wine is obtained from wine with a total alcoholic strength of not less than 9% vol.</p> <p>It has an actual alcoholic strength of not less than 7% vol.</p> <p>It has an excess pressure, due to endogenous carbon dioxide in solution, of not less than 1 bar and not more than 2.5 bar when kept at a temperature of 20 °C in closed containers.</p> <p>It is put up in containers of 60 litres or less.</p>
<b>Aerated semi-sparkling wine</b>	<p>Aerated semi-sparkling wine is obtained from wine.</p> <p>It has a total alcoholic strength of not less than 9% vol and an actual alcoholic strength of not less than 7% vol.</p> <p>It has an excess pressure of not less than 1 bar and not more than 2.5 bar when kept at a temperature of 20 °C in closed containers due to carbon dioxide in solution which has been wholly or partially added.</p> <p>It is put up in containers of 60 litres or less</p>
<b>Tirage liqueur</b>	<p>The product added to the cuvée to provoke secondary fermentation.</p>
<b>Expedition liqueur</b>	<p>The product added to sparkling wines to give them special taste qualities. The expedition liqueur may contain only:</p> <ul style="list-style-type: none"><li>• sucrose,</li><li>• grape must,</li><li>• grape must in fermentation,</li><li>• concentrated grape must,</li><li>• rectified concentrated grape must;</li><li>• wine, or</li><li>• a mixture thereof,</li></ul> <p>with the possible addition of wine distillate.</p>
<b>Cuvée</b>	<ul style="list-style-type: none"><li>• the grape must;</li><li>• the wine;</li><li>• the mixture of grape musts and/or wines with different characteristics,</li></ul> <p>intended for the preparation of a specific type of the sparkling wines.</p>



## General winemaking practices

Unless otherwise specified, the winemaking practices for standard wines in Appendix 1 also apply to the production of sparkling wines. There are a few modifications to the general winemaking practices as follows:

- diammonium phosphate and ammonium sulphate used for secondary fermentation of sparkling wine is limited to 0.3 g/l;
- calcium alginate and potassium alginate are permitted for use only in bottle fermented sparkling wine.

Note that carbonated sparkling wine is not covered by the specific rules regulating the production of sparkling wine. It is considered an ordinary wine with added carbon dioxide and the standard winemaking rules apply. Note also that the addition of tirage and expedition liquors containing sucrose to sparkling wine is not classed as enrichment.

## Sparkling wines

1. Maximum sulphur dioxide content is 185mg/l.
2. The cuvée can undergo enrichment only where technically justified and under the following conditions,
  - none of the constituents of the cuvée has previously undergone enrichment;
  - the said constituents are derived solely from grapes harvested in its territory;
  - the enrichment is carried out in a single operation;
  - the following limits are not exceeded:
    - 3% vol. for a cuvée comprising constituents from wine-growing zone A,
    - 2% vol. for a cuvée comprising constituents from wine-growing zone B,
    - 1,5% vol. for a cuvée comprising constituents from wine-growing zone C;
  - the method used is the addition of sucrose, of concentrated grape must or of rectified concentrated grape must.
3. The addition of tirage liqueur and expedition liqueur shall be considered neither as enrichment nor as sweetening. The addition of tirage liqueur may not cause an increase in the total alcoholic strength by volume of the cuvée of more than 1,5% vol. This increase shall be measured by calculating the difference between the total alcoholic strength by volume of the cuvée and the total alcoholic strength by volume of the sparkling wine before any expedition liqueur is added.
4. The addition of expedition liqueur shall be carried out in such a way as not to increase the actual alcoholic strength by volume of the sparkling wine by more than 0,5% vol.
5. Sweetening of the cuvée and its constituents shall be prohibited.
6. In addition to any acidification or deacidification of the constituents of the cuvée in accordance with Regulation (EC) No 479/2008, the cuvée may be subject to acidification or deacidification. Acidification and deacidification of the cuvée shall be mutually exclusive. Acidification may be carried out only up to a maximum of 1.5 grams per litre, expressed as tartaric acid, i.e. 20 milliequivalents per litre.

7. In years of exceptional climate conditions, the maximum limit of 1,5 grams per litre or 20 milliequivalents per litre may be raised to 2,5 grams per litre or 34 milliequivalents per litre, provided that the natural acidity of the products is not less than 3 g/l, expressed as tartaric acid, or 40 milliequivalents per litre.
8. The carbon dioxide contained in the sparkling wines may be produced only as a result of the alcoholic fermentation of the cuvée from which such wine is prepared. Such fermentation, unless it is intended for processing grapes, grape must or partially fermented grape must directly into sparkling wine, may result only from the addition of tirage liqueur. It may take place only in bottles or in closed tanks. The use of carbon dioxide in the case of the process of transfer by counter-pressure is authorised under supervision and on condition that the pressure of the carbon dioxide contained in the sparkling wine is not thereby increased.
9. The actual alcoholic strength by volume, including the alcohol contained in any expedition liqueur added, shall be not less than 9,5% vol.
10. The tirage liqueur may contain only:
  - grape must,
  - grape must in fermentation,
  - concentrated grape must,
  - rectified concentrated grape must, or
  - sucrose and wine.

## Quality sparkling wine

1. Maximum sulphur dioxide content is 185 mg/l.
2. The tirage liqueur intended for the production of a quality sparkling wine may contain only:
  - sucrose,
  - concentrated grape must,
  - rectified concentrated grape must,
  - grape must or partially fermented grape must, or
  - wine.
3. Points 1 - 7 above apply to the production of quality sparkling wine.
4. Excess pressure must be not less than 3 bar when kept at a temperature of 20 °C in closed containers of a capacity of less than 25 cl.
5. The duration of the process of making quality sparkling wines, including ageing in the undertaking where they are made and reckoned from the start of the fermentation process designed to make the wines sparkling, may not be less than:
  - a. six months where the fermentation process designed to make the wines sparkling takes place in closed tanks;
  - b. nine months where the fermentation process designed to make the wines sparkling takes place in the bottles.for the minimum excess pressure and paragraphs 6 and 7 of point C for the minimum length of the production process, without prejudice to paragraph 4(d) of this point.

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#### 4. As regards quality aromatic sparkling wines:

- except by way of derogation, these may be obtained only by making exclusive use, when constituting the cuvée, of grape must or partially fermented grape must derived from specified aromatic wine varieties (contact New Zealand Winegrowers for a copy of the list if required);
- control of the fermentation process before and after the cuvée has been constituted, in order to render the cuvée sparkling, may be effected only by refrigeration or other physical processes;
- the addition of expedition liqueur shall be prohibited;
- the length of the production process for quality aromatic sparkling wines may not be less than one month.

## APPENDIX 3 - RULES FOR LIQUEUR WINE EXPORTED TO THE EU

1. Liqueur wine is obtained from grape must in fermentation, wine or a combination of both.
2. It has an actual alcoholic strength by volume of not less than 15% vol. and not more than 22% vol. and a total alcoholic strength by volume of not less than 17.5% vol.
3. It has an initial alcoholic strength of not less than 12% vol.
4. The products below are added, either individually or in combination;
  - neutral alcohol of vine origin, including distillation of dried grapes, having an actual alcoholic strength of not less than 96% vol.
  - wine or dried grape distillate with an actual alcoholic strength of not less than 52% vol. and not more than 86% vol.together with one or more of the following products, where appropriate:
  - concentrated grape must
  - a combination of one of the products in the first two bullet points with a grape must or a grape must in fermentation.
5. The winemaking practices permitted in Appendix A may also be used for liqueur wine.
6. The following practices are also permitted:
  - sweetening, where the products used have not been enriched with concentrated grape must, by means of concentrated grape must or rectified concentrated grape must, provided that the increase in the total alcoholic strength by volume of the wine in question is not more than 3 % vol.
  - the addition of wine-based alcohol, distillate or spirits in order to compensate for losses due to evaporation during ageing.

# APPENDIX 4: GUIDE TO EU RULES FOR ADJUSTING ALCOHOL/SUGAR CONTENT OF MUST AND WINE

## 1. ENRICHMENT

Enrichment refers to winemaking additions or processes that are permitted for the purpose of increasing (or potentially increasing) the actual alcoholic strength of a wine i.e.: the addition of sugars before the completion of fermentation and concentration of alcohol after fermentation.

### 1.1 Enrichment by addition

Enrichment by addition of concentrated grape musts, rectified concentrated grape musts and sucrose are subject to the following conditions:

- Addition of concentrated grape must, rectified concentrated grape must and sucrose only.
- Sucrose additions by dry sugaring only.
- The natural alcoholic strength of unfermented sugars of the product subject to enrichment must not be increased by more than 1.5% (2% for 2012 vintage wines). The total volume of the product subject to enrichment must not be increased by more than 6.5%.
- The total (i.e. actual + potential) alcoholic strength must not be increased to more than 15%.
- Higher levels may apply if appropriate to production conditions (as in 2012) - contact NZFSA or NZW for advice.
- Any concentrated grape musts used in the production of New Zealand wine should be sourced 100% from grapes grown in New Zealand. If concentrated grape musts are used that is not sourced for New Zealand grown grapes is used, the country of origin should be declared on the label.
- Concentrated grape musts used for enrichment do not form part of the 85% minimum content required for vintage, variety or region statements on a wine label.

### 1.2 Enrichment by partial dehydration of musts

Partial dehydration of grape musts is considered enrichment because the process can increase the actual alcohol of a product. Enrichment by the partial dehydration of grape must is subject to the following rules:

- Partial dehydration of musts by freeze concentration, reverse osmosis, partial evaporation by vacuum or partial evaporation by atmospheric pressure only;
- Concentration cannot lead to a reduction of more than 20% of initial volume nor increase more than 2% of the initial, potential alcoholic strength of the grape must;
- Wine made from grape must subject to this process should not undergo further concentration;
- The procedure shall be conducted under the responsibility of an oenologist or a specialist technician;
- Reverse osmosis must be conducted using membranes that comply with the prescriptions of the OIV's International Oenological Codex;
- Partial evaporation by vacuum must be conducted using a continuous, rather than a re-circulating, unit;
- Partial evaporation by atmospheric pressure evaporation

may be done in open cauldrons, with or without stirring, heated by direct fire, or by steam sleeves or in another calorific fluid. These processes must be conducted in such a way as to obtain the desired degree of concentration and caramelization of sugar without obtaining undesirable changes in taste.

### 1.3 Partial dehydration of wine

Partial dehydration of wine is considered enrichment because the process can increase the actual alcohol of a product. Enrichment by the partial dehydration of wine is subject to the following rules:

- Partial dehydration by freeze concentration, partial vacuum evaporation and/or membrane techniques such as: microfiltration, ultrafiltration, reverse osmosis, electromembranes only;
- Concentration can lead to a reduction of 20% of initial volume and should not be increased by more than 2% by volume of the initial alcohol strength of wine;
- These processes may not be used on wines showing any organoleptic defects;
- These processes may not be used on wines made from grapes or must that have already undergone concentration;
- These process may not be used to conceal fraud;
- Reverse osmosis must be conducted using membranes that comply with the prescriptions of the OIV's International Oenological Codex;
- These processes must be carried out under the responsibility of an oenologist or specialised technician.

## 2. SWEETENING

Sweetening refers to the addition of sugars after fermentation to increase the residual sugar in a wine. It includes the adjustment of acidity by sugar addition to wine. Sweetening is not enrichment. A wine that has been sweetened but not enriched does not need to be entered as "enriched" in the Wine Export Certification database.

Sweetening may only be carried out under the following limits:

- Only grape must, concentrated grape must or rectified concentrated grape must may be used;
- Sucrose is not permitted;
- The total alcoholic strength by volume of the wine in question may not be increased by more than 4 % vol;
- Any concentrated grape musts used in the production of New Zealand wine should be sourced 100% from grapes grown in New Zealand. If concentrated grape musts are used that is not sourced for New Zealand grown grapes is used, the country of origin must be declared on the label;
- Concentrated grape musts used for sweetening do not form part of the 85% minimum content required for vintage, variety or region statements on a wine label.

## ENRICHMENT & SWEETENING AT A GLANCE

This table relates to non-fortified, still wine only. Separate information is available in relation to sparkling and liqueur wines.

	FRESH GRAPES	GRAPE MUST	GRAPE MUST IN FERMENTATION	NEW WINE STILL IN FERMENTATION	WINE (FULLY FERMENTED)
ADDITION OF GRAPE MUST	Permitted by definition of wine	Permitted by definition of wine	Permitted by definition of wine	Permitted by definition of wine	Sweetening
ADDITION OF CONCENTRATED MUST	Enrichment	Enrichment	Enrichment	Enrichment	Sweetening
ADDITION OF RECTIFIED CONCENTRATED MUST	Enrichment	Enrichment	Enrichment	Enrichment	Sweetening
ADDITION OF SUCROSE	Enrichment	Enrichment	Enrichment	Enrichment	
PARTIAL CONCENTRATION OF SUGARS (E.G. BY FREEZING, REVERSE OSMOSIS)	Enrichment	Enrichment			
PARTIAL CONCENTRATION OF ALCOHOL BY COOLING					Enrichment

## 3. REDUCTION OF ALCOHOL

The total alcohol level of wine may be reduced either by reduction of sugars in the must or reduction of alcohol in the finished product. These two treatments are mutually exclusive.

### 3.1 Reduction of sugar content in musts

Reduction of sugar content in musts may be achieved by using membrane coupling combining microfiltration or ultrafiltration with nanofiltration or reverse osmosis. The objective of the first step is to prepare the must for the second concentration step and to filter out all the macromolecules smaller than the membrane's cut-off size. This step may be done by ultrafiltration.

The ultrafiltrate obtained during the first step of the treatment is then concentrated by nanofiltration or inverted osmosis. The water and the organic acids filtered out by the nanofiltration process can be reintroduced into the treated must. The treatment is to be conducted under the responsibility of an oenologist or of a qualified technician

The following conditions apply:

- the components of the must other than sugar must be maintained;
- this process may not be used on wines that will be de-alcoholised;
- this process may not be used on wines or musts that are (or will be) enriched;
- the process may not be used to conceal fraud;
- permeates may only be re-combined with the product from which they were originally obtained;
- where possible, re-combination must occur at the same place and as quickly as possible;
- the resulting wine must comply with the relevant maximum and minimum alcohol levels.

### 3.2 Dealcoholisation of wine

Dealcoholisation of wine may be achieved by one or a combination of partial vacuum evaporation and/or membrane techniques such as: microfiltration, ultrafiltration, reverse osmosis, electromembranes.

Depending on the degree of dealcoholisation, the product may or may not be defined as wine:

- A product that is dealcoholised by up to 20% of the actual alcohol content, but retains a final alcohol level of greater than 8.5% may be sold as “wine”.
- A product that is dealcoholised and has a final alcohol level of less than 8.5% is not legally “wine” and must be sold under a sales denomination permitted in the specific EU Member State for such products.
- A product that is dealcoholised by more than 20% of the actual alcohol content, but retains a final alcohol level of greater than 8.5% is in a legal grey area. We recommend that you seek advice from your importer as to the correct sales designation in the EU member state in which the product will be sold.

The following conditions apply:

- the process may not be used to conceal fraud;
- permeates may only be re-combined with the product from which they were originally obtained;
- where possible, re-combination must occur at the same place and as quickly as possible;
- dealcoholisation must not be used on wines with any other organoleptic defects;
- dealcoholisation must not be done in conjunction with a modification in the sugar content in the corresponding musts;
- the process must be carried out under the responsibility of an oenologist or specialised technician.

## 4. USEFUL DEFINITIONS

**Grape must** is the liquid product obtained naturally or by physical processes from fresh grapes. An actual alcoholic strength of the grape must of not more than 1 % vol. is permissible.

**Grape must in fermentation** is the product obtained from the fermentation of grape must which has an actual alcoholic strength of more than 1% vol. but less than three fifths of its total alcoholic strength by volume.

**Concentrated grape must** is uncaramelised grape must which is obtained by partial dehydration of grape must carried out by any authorised method other than by direct heat in such a way that the figure indicated by a refractometer used in accordance with a method to be prescribed in accordance with Article 31 at a temperature of 20oC is not less than 50.9 %. An actual alcoholic strength of the concentrated grape must of not more than 1 % vol. is permissible.

**Rectified concentrated grape must** is the liquid uncaramelised product which:

- (a) is obtained by partial dehydration of grape must carried out by any authorised method other than direct heat in such a way that the figure indicated by a refractometer used in accordance with a method to be prescribed in accordance with Article 31 at a temperature of 20oC is not less than 61.7 %;
- (b) has undergone authorised treatment for de-acidification and elimination of constituents other than sugar;
- (c) has the following characteristics:
  - a pH of not more than 5 at 25oBrix,
  - an optical density at 425 nm for a thickness of 1 cm of not more than 0,100 in grape must concentrated at 25oBrix,
  - a sucrose content undetectable by a method of analysis to be defined,
  - a Folin-Ciocalteu index of not more than 6,00 at 25oBrix,
  - a titratable acidity of not more than 15 miliequivalents per kilogram of total sugars,
  - a sulphur dioxide content of not more than 25 milligrams per kilogram of total sugars,
  - a total cation content of not more than 8 miliequivalents per kilogram of total sugars,
  - a conductivity at 25oBrix and 20oC of not more than 120 micro-Siemens/cm,
  - a hydroxymethylfurfural content of not more than 25 milligrams per kilogram of total sugars,
  - presence of mesoinositol.

An actual alcoholic strength of the rectified concentrated grape must of not more than 1 % vol. is permissible.

**New wine still in fermentation** is the product in which the alcoholic fermentation is not yet complete and which is not yet separated from its lees.



## NOTES

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